SYSTEM AND METHOD FOR DESIGNING AND OPTIMIZING THE MEMORY OF AN EMBEDDED PROCESSING SYSTEM

ABSTRACT OF THE DISCLOSURE

There is disclosed an apparatus for designing and optimizing a memory for use in an embedded processing system. The apparatus comprises: 1) a simulation controller for simulating execution of a test program to be executed by the embedded processing system; 2) a memory access monitor for monitoring memory accesses to a simulated memory space during the simulated execution of the test program, wherein the memory access monitor generates memory usage statistical data associated with the monitored memory accesses; and 3) a memory optimization controller for comparing the memory usage statistical data and one or more predetermined design criteria associated with the embedded processing system and, in response to the comparison, determining at least one memory configuration capable of satisfying the one or more predetermined design criteria.